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IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

1. (currently amended) An audio coding system, comprising:

a template generation component to generate templates for use in an audio coding operation, said template generation component including a templates database populated by at least one distortion threshold template that includes psycho-acoustic thresholds over a range of frequencies; and

an audio coding component that performs an audio coding operation, said audio coding operation utilizing said at least one distortion threshold template,

said template generation component further including:

an audio excerpts database populated by at least one audio excerpt; and

a psycho-acoustic model that creates said at least one distortion threshold template, said psycho-acoustic model utilizing said at least one audio excerpt.

2. (canceled)

3. (original) The audio coding system of claim 1, said template generation component further including:

a classification scheme to classify said at least one distortion threshold template into at least one class.

4. (original) The audio coding system of claim 1, wherein said audio coding operation includes an algorithm that utilizes said at least one distortion threshold template, and said audio coding component further includes an audio encoder that implements said algorithm to convert an uncompressed audio signal into a compressed audio signal.

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5. (original) The audio coding system of claim 1, said audio coding operation including a selection control to select said at least one distortion threshold template.

6. (original) The audio coding system of claim 1, wherein said audio coding operation is a transcoding operation that alters a compression attribute of an audio stream to generate a transcoded audio stream.

7. (original) The audio coding system of claim 6, wherein said compression attribute is a bit rate.

8. (original) The audio coding system of claim 6, said transcoding operation further including an inverse quantization operation and a bit allocation and quantization operation that utilizes said at least one distortion threshold template.

9. (original) The audio coding system of claim 8, said bit allocation and quantization operation utilizing a common intermediate audio representation (CIAR).

10. (original) The audio coding system of claim 9, wherein said CIAR is a set of modified discrete cosine transform (MDCT) coefficients.

11. (currently amended) A method of coding an audio stream, comprising:
 providing a database populated by at least one distortion threshold template;
 providing an audio coding component that performs an audio coding operation that utilizes said at least one distortion threshold template that includes psycho-acoustic thresholds over a range of frequencies;
 receiving an incoming audio stream;
 performing said audio coding operation utilizing said at least one distortion threshold template on said incoming audio stream; and
 producing a coded audio stream; and

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generating said database of said at least one distortion threshold template, including:
providing an audio excerpts database populated by at least one audio excerpt,
providing a psycho-acoustic model suitable for creating distortion threshold
templates based on audio excerpts, and
creating said at least one distortion threshold template with said at least one audio
excerpt by implementation of said psycho-acoustic model.

12. (canceled)

13. (currently amended) The method of claim ~~12~~ 11, said generating said database further including classifying said at least one distortion threshold template into at least one class.

14. (canceled)

15. (original) The method of claim 11, wherein said audio coding operation further includes an algorithm that utilizes said at least one distortion threshold template, and said performing said audio coding operation further includes:

selecting said at least one distortion threshold template; and

implementing said algorithm to convert said incoming audio stream into said coded audio stream.

16. (original) The method of claim 11, wherein said audio coding operation is a transcoding operation, said coded audio stream is a transcoded audio stream, and said performing said audio coding operation further includes altering a compression attribute of said incoming audio stream

17. (original) The method of claim 16, wherein said compression attribute is a bit rate.

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18. (original) The method of claim 16, wherein said performing said audio coding operation further includes:

- performing an inverse quantization operation; and
- performing a bit allocation and quantization operation that utilizes said at least one distortion threshold template.

19. (original) The method of claim 18, said performing said bit allocation and quantization operation further including implementing a common intermediate audio representation (CIAR).

20. (original) The method of claim 19, wherein said CIAR is a set of modified discrete cosine transform (MDCT) coefficients.

21. (currently amended) A program code storage device, comprising:
 a machine-readable storage medium; and
 machine-readable program code, stored on the machine-readable storage medium, the machine-readable program code having instructions to:

- provide a database populated by at least one distortion threshold template;
- provide an audio coding component that performs an audio coding operation that utilizes said at least one distortion threshold template that includes psycho-acoustic thresholds over a range of frequencies;
- receive an incoming audio stream;
- perform said audio coding operation utilizing said at least one distortion threshold template on said incoming audio stream; and
- produce a coded audio stream; and
- generate said database of said at least one distortion threshold template.

wherein said instructions to generate said database further include instructions to:

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provide an audio excerpts database populated by at least one audio excerpt,
provide a psycho-acoustic model suitable for creating distortion threshold templates based on audio excerpts, and
create said at least one distortion threshold template with said at least one audio excerpt by implementation of said psycho-acoustic model.

22. (canceled)

23. (currently amended) The device of claim ~~22~~ 21, wherein said instructions to generate said database further include instructions to classify said at least one distortion threshold template into at least one class.

24. (canceled)

25. (original) The device of claim 21, wherein said audio coding operation further includes an algorithm that utilizes said at least one distortion threshold template, and said instructions to perform said audio coding operation further include instructions to:

select said at least one distortion threshold template; and

implement said algorithm to convert said incoming audio stream into said coded audio stream.

26. (original) The device of claim 21, wherein said audio coding operation is a transcoding operation, said coded audio stream is a transcoded audio stream, and said instructions to perform said audio coding operation further include instructions to alter a compression attribute of said incoming audio stream

27. (original) The device of claim 21, wherein said compression attribute is a bit rate.

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28. (original) The device of claim 21, wherein said instructions to perform said audio coding operation further include instructions to:

perform an inverse quantization operation; and

perform a bit allocation and quantization operation utilizing said at least one distortion threshold template.

29. (original) The device of claim 28, wherein said instructions to perform said bit allocation and quantization operation further include instructions to implement a common intermediate audio representation (CIAR).

30. (original) The device of claim 29, wherein said CIAR is a set of modified discrete cosine transform (MDCT) coefficients.

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